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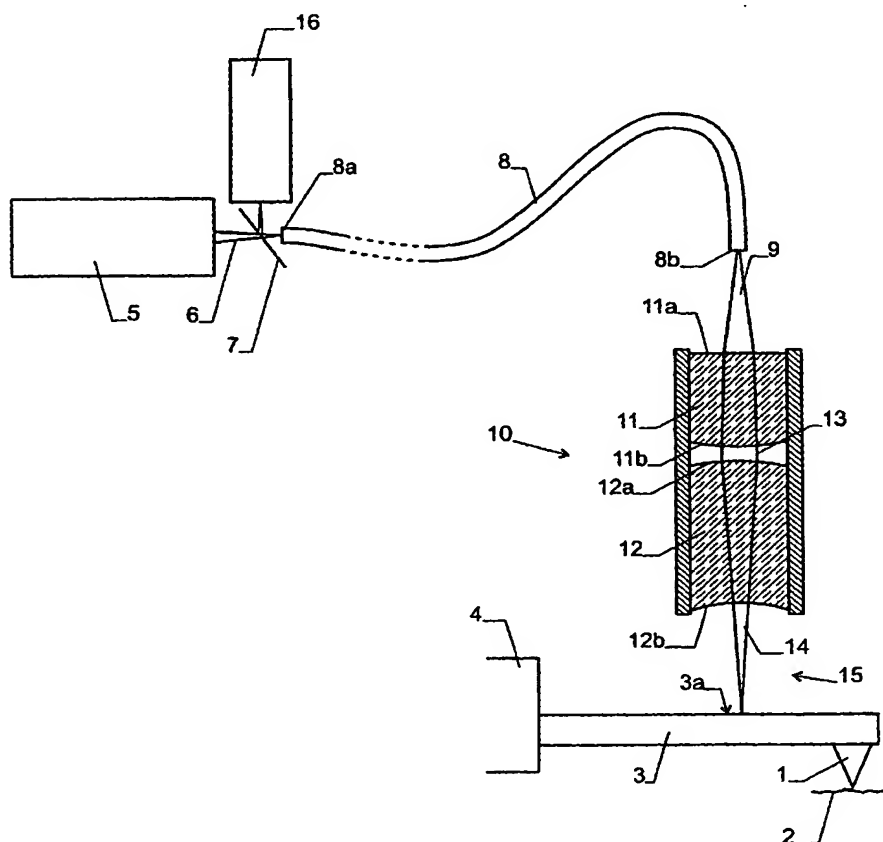
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[Continued on next page]

(54) Title: SENSOR WITH CANTILEVER AND OPTICAL RESONATOR



(57) Abstract: An optical sensor, in particular for a scanning force microscope, measures the deflection of a cantilever (3) using an optical resonator between the cantilever (3) and an output surface (12b) of a lens assembly (10). In order to form the resonator, output surface (12b) is concave and parallel to the wavefronts of the light within the resonator. This design provides a resonator of high stability and allows to keep the distance between lens assembly (10) and cantilever (3) comparatively large.

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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 G12B21/08 G12B21/20 G12B21/02 G01D5/26 G01D5/353

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, INSPEC, COMPENDEX

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2002/000511 A1 (SCHAFER TILMAN E ET AL) 3 January 2002 (2002-01-03) figures 3-6 paragraphs '0028!-'0034! ---	1-12
A	US 5 166 516 A (KAJIMURA HIROSHI) 24 November 1992 (1992-11-24) figures 1,3 column 3, line 30 -column 4, line 37 ---	1-12
A	EP 0 557 743 A (IBM) 1 September 1993 (1993-09-01) figure 1 column 4, line 22 -column 5, line 14 --- -/--	1-12



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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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